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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/816,319	Applicant(s) MADDIN ET AL.
	Examiner AARON STRANGE	Art Unit 2448

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 18 March 2009.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 19-38 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 19-38 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 20090424 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's amendments and arguments with respect to the rejection of claims 31-38 under 35 U.S.C. § 101 have been fully considered and are persuasive.

Accordingly, that rejection has been withdrawn.

2. Applicant's remaining arguments filed 3/18/2009 have been fully considered but they are not persuasive.

3. With regard to claim 19, and Applicant's assertion that Souder "specifically teaches away from using synchronous replication in [an] environment with nodes that are not available to update their copies of an object", and that is cannot "address the situation that applicants' claims address (i.e., nodes that are not available to update their copies)" (Remarks 10), it is noted that the current claims do not provide for updating of nodes "that are not available". In fact, each of independent claims 19, 24 and clearly require that each computer storing a copy of the object be "available to modify its copy" before the objects are updated.

Souder teaches that "modification is stalled until all nodes have been updated", ensuring that an update is not completed until all nodes sorting a copy of the data are available. The fact that "dormant" client cannot be updated since they are unavailable is not inconsistent with the claimed invention which requires all nodes to be available

before an update is completed. The existence of a dormant client simply prevents updating until the dormant client becomes available.

4. With further regard to claim 19, Applicant's arguments regarding Geyer (Remarks 11-12) are largely moot, since Geyer is no longer relied upon to teach confirmation of a modification from all clients in the system. However, it appears that Applicant has misinterpreted the Examiner's interpretation of Geyer.

Geyer teaches that, in the peer-to-peer embodiment, each client includes the functionality of the "GSO server" (¶41, ll. 10-12). Whenever a client seeks to modify an object, it notifies "the other clients" and awaits receipt from [at least one client] that the request has been processed (¶41, ll. 22-25). The Examiner agrees that a particular object may be managed by a single client, since Geyer discloses checking to see whether the "partner client has access to the object or not" (¶41, ll. 14-17). However, the number of clients managing a particular object is not relevant to the number of clients required to confirm modification of an object.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 19-38 rejected under 35 U.S.C. 103(a) as being unpatentable over Geyer et al. (US 20050165859) in view of Souder et al. (US 5,806,074).

7. In regards to claim 19, Geyer et al. discloses a method for sharing system network objects between computers, each system network object having multiple copies stored at different computers, comprising:

- a. providing a shared context (**¶0023 line(s) 11-16**), the shared context having a unique identifier (**fig. 2 #32, ¶0029 line(s) 10**), a number of associated system network objects (**fig. 2 #34, ¶0030 line(s) 1-2**), identifications of computers that store copies of each system network object (**¶0025 line(s) 8-11, ¶0027 line(s) 1-2, 5-11**), and security permissions indicating access rights of computers to the context and the system network objects (**fig. 2 #32, ¶0023 line(s) 12-15, ¶0029 line(s) 12**);
- b. receiving from a first computer a request to join the shared context identified by the unique identifier (**¶0026 line(s) 16-17, ¶0030 line(s) 14-19, ¶0035 line(s) 8-9**, teach that a user can request to gain access (join) a shared object (chat session).);
- c. in response to receiving from the first computer a request to join the shared context (**¶0026 line(s) 17-19**), determining whether the first computer has permission to join the shared context and if the first computer has permission to join the shared context (**¶0039 line(s) 7-10**), granting permission to the first

computer to join the shared context (¶0036 line(s) 11-13, ¶0039 line(s) 14-17);

and

d. after the first computer has joined the shared context (¶0026 line(s) 17-19),

i. receiving from the first computer a request to modify a first system network object associated with the shared context (¶0035 line(s) 6-8, ¶0039 line(s) 5-7);

ii. in response to receiving from the first computer a request to modify a first system network object associated with the shared context, determining whether the first computer has permission to modify the first system network object and if the first computer has permission to modify the first system network object (¶0039 line(s) 7-10), granting permission to the first computer to modify the first system network object (¶0036 line(s) 11-13, ¶0039 line(s) 14-17).

Geyer further discloses that, in a system where there are three or more clients, a client seeking to modify an object notifies the other clients of the modification and awaits receipt of a confirmation from at least some of the clients (¶41). However, Geyer fails to specifically disclose that modification of the object copies is prevented unless and until a confirmation is received from all other clients.

Souder discloses a well-known method for maintaining coherency among multiple copies of a data object. Souder discloses that the technique known as

"synchronous replication" results in an update to a data object being immediately replicated to all other copies of the object (col. 2, ll. 1-5). Furthermore, the update transaction is not completed until all nodes are available to be updated (col. 2, ll. 16-18). This would have been an advantageous addition to the system disclosed by Geyer since it would have provided a simple method of guaranteeing that all copies of the data object are the same (col. 2, ll. 8-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a synchronous update procedure to guarantee that all copies of a particular data object are the same, by preventing changes to the data object until all nodes containing a copy of the object are available.

8. In regards to claims 20, 26 and 33 Geyer et al. discloses wherein the request to modify a first system network object includes a request to invoke a method of the first system network object (**¶0030 line(s) 14-17, ¶0035 line(s) 8-9**).

9. In regards to claims 21 and 27 Geyer et al. discloses wherein the first computer stores at least one copy of the first system network object (**¶0026 line(s) 1-4**).

10. In regards to claims 22, 28, and 35 Geyer et al. discloses wherein the first computer does not store a copy of the first system network object (**¶0026 line(s) 1-4, teach that the database is optional for storing the objects**).

11. In regards to claims 23, 29, and 26 Geyer et al. discloses notifying computers associated with the shared context when the first computer joins the shared context (¶0026 line(s) 19-21).

12. In regards to claim 24 Geyer et al. discloses, a computer-readable medium containing instructions for sharing system network objects between computers, each system network object having multiple copies stored at different computers, by a method comprising:

- e. providing a shared context (¶0023 line(s) 11-16), the shared context having a number of associated system network objects (fig. 2 #34, ¶0030 line(s) 1-2);
- f. receiving from a first computer a request to join the shared context (¶0026 line(s) 16-17, ¶0030 line(s) 14-19, ¶0035 line(s) 8-9, teach that a user can request to gain access (join) a shared object (chat session).);
- g. determining whether the first computer has permission to join the shared context and if the first computer has permission to join the shared context (¶0039 line(s) 7-10), granting permission to the first computer to join the shared context (¶0036 line(s) 11-13, ¶0039 line(s) 14-17); and
- h. after the first computer has joined the shared context (¶0026 line(s) 17-19),

- iii. receiving from the first computer a request to modify a first system network object associated with the shared context (**¶0035 line(s) 6-8, ¶0039 line(s) 5-7**);
- iv. determining whether the first computer has permission to modify the first system network object and if the first computer has permission to modify the first system network object (**¶0039 line(s) 7-10**), granting permission to the first computer to modify the first system network object (**¶0036 line(s) 11-13, ¶0039 line(s) 14-17**);

Geyer further discloses that, in a system where there are three or more clients, a client seeking to modify an object notifies the other clients of the modification and awaits receipt of a confirmation from at least some of the clients (**¶41**). However, Geyer fails to specifically disclose that modification of the object copies is prevented unless and until a confirmation is received from all other clients.

Souder discloses a well-known method for maintaining coherency among multiple copies of a data object. Souder discloses that the technique known as "synchronous replication" results in an update to a data object being immediately replicated to all other copies of the object (col. 2. ll. 1-5). Furthermore, the update transaction is not completed until all nodes are available to be updated (col. 2, ll. 16-18). This would have been an advantageous addition to the system disclosed by Geyer since it would have provided a simple method of guaranteeing that all copies of the data object are the same (col. 2, ll. 8-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a synchronous update procedure to guarantee that all copies of a particular data object are the same, by preventing changes to the data object until all nodes containing a copy of the object are available.

13. In regards to claims 25 and 32 Geyer et al. discloses wherein the shared context further comprises identifications of computers that store copies of each system network object (**¶0025 line(s) 8-11, ¶0027 line(s) 1-2, 5-11**) and security permissions indicating access rights of computers to the context and the system network objects (**fig. 2 #32, ¶0023 line(s) 12-15, ¶0029 line(s) 12**).

14. In regards to claim 30 Geyer et al. discloses wherein when at least one computer that stores a copy of the first system network object is not available to modify its copy, none of the copies of the first system network object are modified (**¶0041 line(s) 7-17, 22-25, teach that the client waits before beginning modification till after the client response to the request, inherently when the client is not available not updating/modifying any of the copies.**).

15. In regards to claim 31 Geyer et al. discloses, a computer system for sharing system network objects between computers, each network object having multiple copies stored at different computers, the system comprising:

- i. a component that provides a shared context (**¶0023 line(s) 11-16**), the shared context having a number of associated system network objects (**fig. 2 #34, ¶0030 line(s) 1-2**);

- j. a component that receives from a first computer a request to join the shared context (~~¶0026 line(s) 16-17, ¶0030 line(s) 14-19, ¶0035 line(s) 8-9, teach that a user can request to gain access (join) a shared object (chat session.).~~);
- k. a component that determines whether the first computer has permission to join the shared context and if the first computer has permission to join the shared context (~~¶0039 line(s) 7-10~~), granting permission to the first computer to join the shared context (~~¶0036 line(s) 11-13, ¶0039 line(s) 14-17~~);
- l. a component that, after the first computer has joined the shared context (~~¶0026 line(s) 17-19~~),
 - v. receives from the first computer a request to modify a first system network object associated with the shared context (~~¶0035 line(s) 6-8, ¶0039 line(s) 5-7~~; and
 - vi. determines whether the first computer has permission to access the first system network object and if the first computer has permission to access the first system network object, grants permission to the first computer to access the first system network object (~~¶0032 line(s) 1-6, ¶0039 line(s) 7-10~~; and

Geyer further discloses that, in a system where there are three or more clients, a client seeking to modify an object notifies the other clients of the modification and awaits receipt of a confirmation from at least some of the clients (~~¶41~~). However, Geyer fails to

specifically disclose that modification of the object copies is prevented unless and until a confirmation is received from all other clients.

Souder discloses a well-known method for maintaining coherency among multiple copies of a data object. Souder discloses that the technique known as "synchronous replication" results in an update to a data object being immediately replicated to all other copies of the object (col. 2, ll. 1-5). Furthermore, the update transaction is not completed until all nodes are available to be updated (col. 2, ll. 16-18). This would have been an advantageous addition to the system disclosed by Geyer since it would have provided a simple method of guaranteeing that all copies of the data object are the same (col. 2, ll. 8-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a synchronous update procedure to guarantee that all copies of a particular data object are the same, by preventing changes to the data object until all nodes containing a copy of the object are available.

16. In regards to claim 34 Geyer et al. discloses a component that associates at least one system network object stored on the first computer with the shared context when the first computer joins the shared context (**¶0029 line(s) 4-12**).

17. In regards to claim 37 Geyer et al. discloses wherein the request to access a first system network object includes a request to modify the first system network object (**¶0035 line(s) 6-8, ¶0039 line(s) 5-7**).

18. In regards to claim 38 Geyer et al. discloses wherein the component that synchronizes further comprises:

- m. a component that after the first computer has been granted permission to modify the first system network object, determining whether each computer that stores a copy of the first system network object (**¶0026 line(s) 1-4**) as indicated by the shared context is available to modify its copy (**¶0041 line(s) 7-17, 22-25, teach that the client waits before beginning modification till after the client response to the request (i.e. determining if all the computers are available for modification.).**); and
- n. a component that when it is determined that each computer that stores a copy of the first system network object is available to modify its copy synchronizes the first system network object by notifying each computer that stores a copy of the first system network object of the modification so that each computer can modify its copy of the first system network object (**¶0025 line(s) 8-11, ¶0039 line(s) 20-23**) and when at least one computer that stores a copy of the first system network object is not available to modify its copy, does not modify any copies of the first system network object (**¶0041 line(s) 7-17, 22-25, teach that the client waits before beginning modification till after the client response to the request, inherently when the client is not available not updating/modifying any of the copies.**).

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON STRANGE whose telephone number is (571)272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron Strange/
Primary Examiner, Art Unit 2448